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EXAMINER	
PHAM, HUNG Q	
ART UNIT	**PAPER NUMBER**
2168	

DATE MAILED: 01/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/919,090	COLLINS ET AL.	
	Examiner	Art Unit	
	HUNG Q. PHAM	2168	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *31 October 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *30-42 and 44-48* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☐ Claim(s) _____ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

- *Claim Objections*

Applicants canceled claim 43 in the amendment filed on 10/31/05. The objection of claim 43 has been withdrawn.

- *Specification*

Claims 33, 39, 41 and 46 were amended by applicants in the amendment filed on 10/31/05 to obviate the objection of the specification. However, the claimed ***the first signal***, ***the third signal*** in the clause *monitoring a storage capacity consumed by the category of data files...* and *apply a reallocation operation to the category of data files...* still has not been amended. Therefore, the objection of the specification is maintained as below.

- *Rejections Under 35 U.S.C. § 112*

Applicants amended claims 31, 37 and 41 in the amendment filed on 10/31/05. However, the rejection of these claims under 35 U.S.C. § 112 is maintained as indicated below.

- *Rejections Under 35 U.S.C. § 102 and 103*

(1) Applicant's arguments filed 10/31/05 with respect to the rejection of claims 30-40 under 35 U.S.C. § 102 and 103 have been fully considered but they are not persuasive.

As argued by applicants:

> *The `415 patent cannot anticipate (or render obvious) independent claim 30 because the `415 patent neither discloses (nor even suggests) limitations explicitly recited in independent claim 30. Claim 30 recites "sorting a plurality of data files on the storage device into one or more categories based on at least one characteristic of the data files" and "reallocating a portion of the data in a category of data files when a storage capacity consumed by the category of data files exceeds a threshold." Claim 36 recites "sort a plurality of data files on a storage device associated with the processor into one or more categories based on at least one characteristic of the data files" and "reallocate a portion of the data in a category of data files when a storage capacity consumed by the category of data files exceeds a threshold."*

Examiner respectfully disagrees.

The claimed *"sorting a plurality of data files on the storage device into one or more categories based on at least one characteristic of the data files"* and *"sort a plurality of data files on a storage device associated with the processor into one or more categories based on at least one characteristic of the data files"* as in claims 30 and 36 are inherited features of Olarig technique, and Olarig teaches the claimed *"reallocate a portion of the data in a category of data files when a storage capacity consumed by the category of data files exceeds a threshold"*.

As taught by Olarig at FIG. 2, Col. 3, Lines 6-11, the local workstation or PC periodically inspects the used capacity of its storage to determine whether some of the data stored on the PC needs to be reallocated, e.g., moved to network storage. As further disclosed by Olarig at Col. 6, Lines 42-44, Window is the operating system of the PC. Window 98 is a well-known operating system. In Window 98, the visited Internet files are stored in Temporary Internet Files, and a particular amount of disk space could be set for Temporary Internet Files to store the visited Internet files. Thus, by using Window operating system as taught by Olarig, e.g., Window 98, *a plurality of data files on the*

storage device, e.g., Internet files, are *sorted into one or more categories*, e.g., Temporary Internet Files, *based on at least one characteristic of the data files*, e.g., the visited Internet files, and *a plurality of data files on a storage device associated with the processor*, e.g., Internet files, are *sorted into one or more categories*, e.g., Temporary Internet Files, *based on at least one characteristic of the data files*, e.g., the visited Internet files. Examiner respectfully directs applicants to "1001 Window 98 Tips" (tips 908-910) that disclosed the Temporary Internet Files.

Referring back to FIG. 2, step 206, Col. 3, Lines 10-24, if a PC's storage space exceeds a threshold, the PC automatically determines which data has been least-recently used and automatically moves such amount of data to the network server's storage to free up a previously determined percentage of storage space on the PC. Thus, *a portion of the data in a category of data files*, e.g., data has been least-recently used in Temporary Internet Files, is *reallocated when a storage capacity consumed by the category of data files exceeds a threshold*, e.g., Temporary Internet Files exceeds the defined amount of disk space or threshold.

Dependent claims 31-35 and 37-40 depend from claims 30 and 36, and are unpatentable because of the reasons as discussed above and by virtue of this dependency.

(2) Applicant's arguments with respect to claims 41, 42 and 44-48 have been considered but are moot in view of the new ground(s) of rejection.

For the above reasons, Examiner believed that rejection of the last Office action was proper.

Claim Objections

Claims 32, 41 and 46 is objected to because of the following informalities:

one more reallocation operations ("one or more reallocation operations" is suggested) as in claims 32, 41 and 46;

a processor in the clause *a memory module comprising logic instructions...* of claim 41, this "processor" references to *a processor* at line 2 of claims 41 and 46, and "the processor" is suggested;

Appropriate correction is required.

Specification

The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: ***a first signal, a third signal*** (claim 46).

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 31, 37, 41 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

As in claims 31 and 37, the limitation ***performing an action when an amount of available storage capacity on the storage device falls below a threshold*** was not described in the specification.

As in claim 41, the limitation ***performing an action when an amount of available storage capacity on the storage device falls below a threshold, and in response to the signal*** was not described in the specification.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 34 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As in claim 34, the clause ***the category of data files identified in the signal*** references to some other items in claims 33, 32 and 30. It is unclear what item is being referenced to.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 30, 31, 36 and 37 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Olarig et al. [6,647,415 B1].

Regarding claims 30 and 36, Olarig teaches ***a method of managing storage space on a storage device associated with a computer system*** (Abstract), comprising:

sorting a plurality of data files on the storage device into one or more categories based on at least one characteristic of the data files (As taught by Olarig at FIG. 2, Col. 3, Lines 6-11, the local workstation or PC periodically inspects the used capacity of its storage to determine whether some of the data stored on the PC needs to be reallocated, e.g., moved to network storage. As further disclosed by Olarig at Col. 6, Lines 42-44, Window is the operating system of the PC. Window 98 is a well-known operating system. In Window 98, the visited Internet files are stored in Temporary Internet Files, and a particular

amount of disk space could be set for Temporary Internet Files to store the visited Internet files. Thus, by using Window operating system as taught by Olarig, e.g., Window 98, *a plurality of data files on the storage device*, e.g., Internet files, are *sorted into one or more categories*, e.g., Temporary Internet Files, *based on at least one characteristic of the data files*, e.g., the visited Internet files, and *a plurality of data files on a storage device associated with the processor*, e.g., Internet files, are *sorted into one or more categories*, e.g., Temporary Internet Files, *based on at least one characteristic of the data files*, e.g., the visited Internet files); and

reallocating a portion of the data in a category of data files when a storage capacity consumed by the category of data files exceeds a threshold (FIG. 2, step 206, Col. 3, Lines 10-24, if a PC's storage space exceeds a threshold, the PC automatically determines which data has been least-recently used and automatically moves such amount of data to the network server's storage to free up a previously determined percentage of storage space on the PC. Thus, *a portion of the data in a category of data files*, e.g., data has been least-recently used in Temporary Internet Files, is *reallocated when a storage capacity consumed by the category of data files exceeds a threshold*, e.g., Temporary Internet Files exceeds the defined amount of disk space or threshold).

Regarding claims 31 and 37, Olarig teaches all the claim subject matters as discussed above with respect to claims 30 and 36, Olarig further discloses the step of ***performing an action when an amount of available storage capacity on the storage device falls below a threshold*** (Col. 3, Lines 20-24).

Claims 41, 42 and 44-48 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Jamsa [1001 Window 98 Tips].

Regarding claim 41, Jamsa teaches a computer that has Window 98 operating system, the computer comprising:

a processor (a processor, e.g., Intel Pentium, is an inherited feature of the computer);

a storage device communicatively connected to the processor (e.g., hard drive as illustrated in the first paragraph of Tip 2);

a memory module comprising logic instructions recorded in a computer-readable medium (as illustrated in the thirst paragraph of Tip 2, Window 98 as *a memory module comprising logic instructions* recorded in CD-ROM) ***which, when executed by a processor, configure the processor to***:

performing an action when an amount of available storage capacity on the storage device falls below a threshold (A hard disk has a capacity as *threshold* in Tip 133, e.g., 519 MB, and an action is performed, e.g., Downloading Program Files, when *an amount of available storage capacity on the storage device falls below a threshold*, e.g., Free Space < Capacity), ***and,***

in response to the signal (Tip 133, in response to the mouse click to "Disk Cleanup" button), ***to***:

present, in a user interface, an indicia of an amount of data storage consumed by a category of data files and one more reallocation operations applicable to a category of data files (Tip 133, FIG. 133.2 as *a user interface presenting an indicia of an amount of data storage consumed by a category of data files*, e.g., the amount of disk space is consumed by Recycle Bin*; and presenting, in the user interface,*

one more reallocation operations applicable to a category of data files, e.g., remove the files in a category by mouse click on the OK button);

receive, from the user interface,

a capacity threshold (As illustrated in paragraph 3 of Tip 909, a capacity threshold is received from the user via the user interface by adjusting the slider),

a reallocation operation (As illustrated in paragraph 3 of Tip 909, deleting as *a reallocation operation* if Temporary Internet Files consume all the amount of predefined disk space) and

a category of data files to which the reallocation operation is applicable (As illustrated in Tip 908, Temporary Internet Files as *a category of data files to which the reallocation operation is applicable*); and

apply the reallocation operation to the category of data files when the category of data files consumes an amount of storage exceeding the capacity threshold (As illustrated in paragraph 3 of Tip 909, the oldest file is deleted as *a reallocation operation* if Temporary Internet Files consume all the amount of predefined disk space).

Regarding claim 42, Jamsa teaches all of the claimed subject matter as discussed above with respect to claim 41, Jamsa further discloses the steps of ***sorting a plurality of data files on the storage device associated into one or more categories based on at least one characteristic of the data files*** (As illustrated in Tip 908, the visited Internet files are sorted into Temporary Internet Files); and ***reallocating a portion of the data in a category of data files when a storage capacity consumed by the category of data files exceeds a threshold*** (Tip 909).

Regarding claim 44, Jamsa teaches all of the claimed subject matter as discussed above with respect to claim 42, Jamsa further discloses the step of ***monitoring storage capacity consumed by the category of data files***; and ***applying a reallocation operation to the category of data files when the category of data files consumes an amount of storage exceeding a capacity threshold*** (Tip 909).

Regarding claim 45, Jamsa teaches all of the claimed subject matter as discussed above with respect to claim 41, Jamsa further discloses the step of ***performing an operation selected from the group of operations consisting of deleting a file, compressing a file, moving a file, and archiving a file*** (Tip 909, FIG. 909, Move Folder).

Regarding claim 46, Jamsa teaches ***a computer system, comprising***:

a processor (a processor, e.g., Intel Pentium, is an inherited feature of the computer),

a storage device communicatively connected to the processor (e.g., hard drive as illustrated in the first paragraph of Tip 2);

a user interface to present an indicia of an amount of data storage consumed by a category of data files and one more reallocation operations applicable to the category of data files (Tip 133, FIG. 133.2 as *a user interface presenting an indicia of an amount of data storage consumed by a category of data files*, e.g., the amount of disk space is consumed by Recycle Bin*; and presenting, in the user interface,* and *one more reallocation operations applicable to the category of data files*, e.g., remove the files in Recycle Bin by mouse click on the OK button);

a memory module comprising logic instructions recorded in a computer-readable medium which, when executed by a processor, configure the processor to (as illustrated in the thirst paragraph of Tip 2, Window 98 as *a memory module comprising logic instructions* recorded in CD-ROM):

receive, from the user interface,

a capacity threshold (As illustrated in paragraph 3 of Tip 909, an amount of disk space or capacity threshold is received from the user via the user interface by adjusting the slider),

a reallocation operation (As illustrated FIG. 909 of Tip 909, "Move Folder" as *a reallocation operation*) and

a category of data files to which the reallocation operation is applicable (As illustrated in Tip 908, Temporary Internet Files as *a category of data files to which the reallocation operation is applicable*);

monitor a storage capacity consumed by the category of data files identified by the third signal (Tip 909, third paragraph, after setting the amount of disk space, the disk space consumed by Temporary Internet Files identified by clicking the Setting box will be monitored); and

apply a reallocation operation to the category of data files identified by the third signal when the category of data files identified by the third signal consumes an amount of storage exceeding the capacity threshold identified by the first signal (Tip 909, deleting the oldest files in Temporary Internet Files when Temporary Internet Files consumes the allowed disk space identified by adjusting the slider).

Regarding claim 47, Jamsa teaches all of the claimed subject matter as discussed above with respect to claim 46, Jamsa further discloses the claimed ***the reallocation operation includes an operation selected from the group of operations consisting of deleting a file, compressing a file, moving a file, and archiving a file*** (Tip 909, FIG. 909, Move Folder).

Regarding claim 48, Jamsa teaches all of the claimed subject matter as discussed above with respect to claim 46, Jamsa further discloses the steps of ***sorting a plurality of data files on the storage device associated into one or more categories based on at least one characteristic of the data files*** (As illustrated in Tip 908, the visited Internet files are sorted into Temporary Internet Files); and ***reallocating a portion of the data in a category of data files when a storage capacity consumed by the category of data files exceeds a threshold*** (Tip 909).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 32-35 and 38-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Olarig et al. [6,647,415 B1] in view of Window 98.

Regarding claims 32 and 38, Olarig teaches all the claim subject matters as discussed above with respect to claims 30 and 36, but fails to teach the step of ***presenting, in a user interface, an indicia of an amount of data storage consumed by a category of data files; and presenting, in the user interface, one more reallocation operations applicable to a category of data files***. However, a PC using operating system such as Window, e.g., Window 98 as suggested by Olarig at Col. 6, Lines 42-44, has ***a user interface presents an indicia of an amount of data storage consumed by a category of data files and one or more reallocation operations applicable to a category of data files*** (Mouse click on the Start menu Programs and then select Windows Explorer, right click the C drive, Window 98 will display a pop-up menu. Click on the Properties option, within the Properties dialog box, click on the Disk Cleanup button for *presenting, in a user interface, an indicia of an amount of data storage consumed by a category of data files*, e.g., the amount of disk space is consumed by Recycle Bin; *and presenting, in the user interface, one more reallocation operations applicable to a category of data files*, e.g., remove the files in a category by mouse click on the OK button. Examiner respectfully directs applicants to "1001 Window 98

Tips" authored by Jamsa, and the limitations of claims 32 and 38 are illustrated at Tip 133).

It would have been obvious for one of ordinary skill in the art at the time the invention was made to have a user interface as in Window 98 in order to keep track the consumed data storage.

Regarding claims 33 and 39, Olarig and Window 98, in combination, teach all of the claimed subject matter as discussed above with respect to claims 32 and 38, Olarig further discloses the step of ***receiving, from the user interface, a capacity threshold*** (Col. 3, Lines 26-31), ***a reallocation operation*** (Col. 3, Lines 10-16, moving data to network server's storage as *a reallocation operation*) and ***a category of data files to which the reallocation operation is applicable*** (Col. 3, Lines 10-13); and ***applying the reallocation operation to the category of data files when the category of data files consumes an amount of storage exceeding the capacity threshold*** (FIG. 2, step 206, Col. 3, Lines 10-16).

Regarding claims 34 and 40, Olarig and Window 98, in combination, teach all of the claimed subject matter as discussed above with respect to claims 33 and 38, Olarig further discloses the step of ***applying the reallocation operation to the category of data files identified in the signal comprises performing an operation selected from the group of operations consisting of deleting a file, compressing a file, moving a file, and archiving a file*** (FIG. 2).

Regarding claim 35, Olarig teaches all the claim subject matters as discussed above with respect to claim 30, but fails to teach the step of ***sorting file in a file allocation table based on a file extension associated with the file***. Window 98 has the technique of ***sorting file in a file allocation table based on a file extension associated with the file*** (Examiner respectfully directs applicants to "1001 Window 98 Tips" authored by Jamsa, and the limitations of claim 35 are illustrated at Tip 188). Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to include the technique of sorting file based on file extension in order to categorize file in a file system.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HUNG Q. PHAM whose telephone number is 571-272-4040. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, JEFFREY A. GAFFIN can be reached on 571-272-4146. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

HUNG Q PHAM
Examiner
Art Unit 2168

January 10, 2006